#### NORTH CAROLINA DIVISION OF **AIR QUALITY**

# **Application Review**

Issue Date: DRAFT – March 23, 2020

Region: Raleigh Regional Office

**County:** Johnston

NC Facility ID: 5100024 **Inspector's Name:** Jeff Harris

**Date of Last Inspection:** 03/18/2020

**Compliance Code:** 3 / Compliance - inspection

#### **Facility Data**

Applicant (Facility's Name): Global Skyware

formerly Raven Antenna Systems - dba Skyware Global

**Facility Address:** 

Global Skyware

1315 Outlet Center Drive Smithfield, NC 27577

SIC: 3679 / Electronic Components, Nec

NAICS: 33422 / Radio and Television Broadcasting and Wireless

Communications Equipment Manufacturing

Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V

#### Permit Applicability (this application only)

SIP: 15A NCAC 02Q .0513 and 02Q .0514

NSPS: N/A NESHAP: N/A PSD: N/A

**PSD Avoidance:** N/A NC Toxics: N/A 112(r): N/A

Other:

RENEWAL & NAME CHANGE ONLY - NO

**MODIFICATIONS** 

# **Contact Data**

#### **Facility Contact Authorized Contact Technical Contact** Patricia Anderson Donald Cochran Patricia Anderson Environmental Plant Manager Environmental (919) 989-1734 Coordinator Coordinator (919) 989-2312 1315 Outlet Center Drive (919) 989-2312 1315 Outlet Center Drive Smithfield, NC 27577 1315 Outlet Center Drive Smithfield, NC 27577 Smithfield, NC 27577

### **Application Data**

**Application Number:** 5100024.19A **Date Received:** 06/21/2019 **Application Type:** Renewal **Application Schedule:** TV-Renewal

**Existing Permit Data Existing Permit Number:** 05529/T26 Existing Permit Issue Date: 04/11/2016

**Existing Permit Expiration Date:** 03/31/2020

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	voc	СО	PM10	Total HAP	Largest HAP
2018		1.49	10.36	1.24	0.1200	8.00	7.58 [Styrene]
2017		1.30	16.32	1.10	0.1100	12.93	12.24 [Styrene]
2016		1.51	19.28	1.26	0.1300	13.50	12.65 [Styrene]
2015		1.67	14.54	1.42	0.1400	10.27	8.99 [Styrene]
2014		1.77	15.29	1.49	0.1400	10.57	9.56 [Styrene]

Review Engineer: Judy Lee

Review Engineer's Signature:

Date:

Comments / Recommendations:

Issue: 05529/T27

Permit Issue Date:
Permit Expiration Date:

#### I. Purpose of Application

This permitting action is for the following:

- 1. Renewal of an existing Title V permit pursuant to 02Q .0513. The existing Title V permit (05529T26) was issued to Raven Antenna Systems (DBA Skyware Global) on April 11, 2016 and expires on March 31, 2020. The renewal application was received in the Division of Air Quality (the Division or DAQ) Raleigh Central Office (RCO) on June 21, 2019, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit will remain in effect until the renewal permit has been issued or denied.
- 2. Administrative Amendment for a Name Change pursuant to 02Q .0514. The facility requested a name change via email on March 3, 2020 followed by a completed Form AA3 received on March 19, 2020 to change the facility name from Raven Antenna Systems dba Skyware Global to Global Skyware.

### II. Facility Description

Excerpt from inspection report prepared by Matthew Mahler, Raleigh Regional Office (RRO) dated December 6, 2018:

Raven Antenna Systems manufactures rooftop and satellite television reception antennas, associated equipment and accessories. The products are made from reinforced plastic composites with Sheet Molding Compound (SMC), which is manufactured on site. There are six compression presses used for various sizes of satellite dishes moldings. Steel screen is inserted on the surface of the molding so that the satellite signal can be reflected on the dish. Once a dish is molded, it takes up to 24 hours to dry. They are then sent to the surface coating operation lines including paint spray booth and paint IR bake oven. Logos are printed on the reception antennas and assembled on site for shipping. The facility employs approximately 200 fulltime and 100 temporary employees. SMC manufacturing requires one 8-hour shift, powder paint lines require one 8-hour shift, and molding requires three 8-hour shifts. Raven Antenna Systems is doing business as Global Skyware.

#### ✓ Facility name/address/legal name/responsible official check:

**IBEAM** compared with Renewal application submittal:

Site Name per application (Form AA): Raven Antenna Systems (dba) Global Skyware

Site Name per application (Form AA4): Raven Antenna Systems (dba Global Skyware)

Site Name per IBEAM: Raven Antenna Systems - DBA Skyware Global

Site Address per application is: 1315 Outlet Center Drive, Smithfield, N.C. 27577, Johnston County

Site Address per IBEAM is: SAME

NC Secretary of State website:

https://www.sosnc.gov/online\_services/search/Business\_Registration\_Results

Raven Antenna Systems Inc.

In **IBEAM**, the Entity name was modified to match the NCSOS's name. However, during the facility's review of the preliminary draft permit, a name change was requested.

An application amendment for name change only was received on March 19, 2020 and consolidated into this renewal application (5100024.19A). Per Form A, Section AA3 – <u>Application for Name Change</u>, the name has been changed to the following:

Global Skyware

In IBEAM, the Facility name was modified to match the above request.

### **Responsible Official:**

Mr. Donald Cochran, Plant Manager, was confirmed as the responsible official (RO) of record via telephone and email on February 25, 2020.

### III. Application Chronology/History

Please see the attached Comprehensive Application Report for 5100024.19A and email correspondence for more details.

•	October 15, 2010	Permit T21 issued. This action renewed the permit and changed the name.
•	January 1, 2011	Permit T22 issued. This action added the boiler Case-by-Case MACT to the permit.
•	January 21, 2011	Application .11A received. This was a State-Only application.
•	January 25, 2011	Permit T23 issued in response to application .11A. This incorporated 15A NCAC 2Q .0705 into the permit and added TAP emission limits.
•	August 1, 2013	Application .13A received. This was a State-Only application.
•	October 30, 2013	Permit T24 issued in response to application .13A. This action removed all TAP limits per Session Law 2012-91.
•	December 22, 2014	Application .14A received in RCO. This was a Renewal application.
•	January 7, 2015	Application .15A received in RCO. This was a Name change application.
•	April 10, 2015	Permit T25 issued for Renewal and a name change.
•	December 10, 2015	Application .15B received in RCO. This was a Minor Modification application.
•	April 11, 2016	Permit T26 issued for a Minor Modification.
•	June 21, 2019	Application .19A received in RCO. This was a Renewal application
•	January 20, 2020	An initial draft of the permit and review were sent to Booker Pullen, RCO.

- February 3, 2019 Comments from first line supervisor, Mr. Pullen.
- February 6, 2020 A draft of the permit and review were sent to DAQ staff (Samir Parekh, Dena Pittman) and Global Skyware staff (Don Cochran, Patricia Anderson). Mr. Cochran's email came back undeliverable. A separate email was sent to Ms. Anderson and Mr. Pete Harkins inquiring if Mr. Cochran was still the RO of record.
- February 19, 2020 Comments received from Ms. Pittman, RRO.
- February 24, 2020 Comments received from Mr. Parekh, SSCB.
- No comments received from the facility to date. This review engineer telephoned Mr. Cochran, Plant Manager, via number on the application to confirm that he was the RO of record and receipt of the application due to the email being undeliverable. Mr. Cochran indicated that his email had not changed and that Ms. Anderson was supposed to have sent me a reply to my previous email the afternoon of February 6, 2020. I indicated that no response had been received from Ms. Anderson and the email on the application Form AA Administrative Application (General Information) that the draft permit was sent to was <a href="mailto:doncochran@globalskyware.com">doncochran@globalskyware.com</a>. When asked what the correct email was, he stated it was <a href="mailto:donaldcochran@globalskyware.com">donaldcochran@globalskyware.com</a>. The email address was corrected in IBEAM to donaldcochran@globalskyware.com.
- February 26, 2020 Teleconference with Ms. Anderson and Mr. Larry Haley of Raven. Ms. Anderson followed up with an email. One item that was discussed was addition of a second Robotic welder as IS-10147. This will be added to the insignificant activities list.
- March 3, 2020 Email received from Ms. Anderson through Mr. Cochran with comments on the draft renewal permit. Comments included a name change request and removal of references to Thick Molding Compound (TMC).
- March 9, 2020 Email to Ms. Anderson through Mr. Cochran regarding the name change requests with a link to our forms required to process the name change.
- March 19, 2020 Application amendment for a name change was received in RCO.
- XXXX, 2020 The Public / EPA Notice periods began.
- XXXX, 2020 The Public Notice period ended. XXXX comments were received.
- XXXX, 2020 The EPA Notice period ended. XXXX comments were received.

#### IV. Permit Modifications/Changes and Title V Equipment Editor Discussion

The following table describes the modifications to the current permit (05529T26) as part of this renewal with administrative amendment request for name change:

Page Number	Section	Description of Changes
Cover letter	NA	<ul> <li>Updated name per facilities request (Form AA3 received March 19, 2020) from "Raven Antenna Systems – dba Skyware Global" to "Global Skyware"</li> <li>Updated permit revision and dates</li> <li>Updated increment statement</li> </ul>
Cover Letter Attachment	Insignificant Activities List	<ul> <li>Revised notation for 4Z</li> <li>Added an additional Robotic Welder (ID No. IS-10147) per email from Raven on February 26, 2020.</li> </ul>
	Table of Changes	• Updated for changes made to permit for this modification
Permit Cover	NA	Revised new issuance and complete application date, application number and permit Nos.
1 – 40	Globally	<ul> <li>Updated name per facilities request from "Raven Antenna Systems – dba Skyware Global" to "Global Skyware"</li> <li>Updated Permit Revision Number in header</li> <li>Updated permit language based on current guidance</li> <li>Removed reference to Thick Molding Compound (TMC) per email from Raven on March 3, 2020</li> </ul>
3 – 4	1	<ul> <li>Revised page numbers to table</li> <li>Updated MACT notations</li> <li>Removed TMC per facility request</li> <li>Removed minor modification language for emission source (ID No. ES00167)</li> </ul>
12 – 13 (previous permit)	2.1. C.4.	• Removed Case-by-Case MACT condition (no longer applies)
9 – 15	2.1. C.4. & C.5.	Revised boiler MACT conditions provided by Mr. Voelker replaced the existing boiler MACT condition
17 – 18 (previous permit)	2.2. A.1.	• Removed 02D .0958 condition (no longer applies)
31 – 40	3	Updated General Conditions to Version 5.3 (08/21/2018)

Per Form A – <u>General Facility Information</u>, this is a renewal only. No changes in equipment or operations. A separate Form A, including a completed Section AA3 – <u>Application for Name Change</u>, was submitted for processing on March 19, 2020 as discussed in Sections I. and III. above.

Minor modifications (i.e., MACT, Case-by-Case) to Title V Equipment Editor (TVEE) were required as a result of this renewal without modification. No new equipment or change in emission sources since issuance of 05529T26.

✓ Comments received from the facility on the preliminary draft renewal via email on February 26, 2020 and March 3, 2020:

February 26, 2020 - Per our telephone conversation earlier today, pertaining to the Insignificant Activities IS-10047 Robotic Welder with dust collector (vents inside), we are currently running 2 Robotic Welders. We will identify the 2<sup>nd</sup> Robotic Welder as IS-10147 which is also vented inside the cabinet. Please add this to our Insignificant Activities in the new permit.

March 3, 2020 - We have completed our review of the attached Draft Permit Renewal. See commits below.

- -Throughout the Permit and cover letter, please replace "Skyware Global" to "Global Skyware".
- -Per our previous email below, pertaining to the Insignificant Activities IS-10047 Robotic Welder with dust collector (vents inside), we are currently running 2 Robotic Welders. We will identify the 2nd Robotic Welder as IS-10147 which is also vented inside the cabinet. Please add this to our Insignificant Activities in the new permit.
- -Page 3 Section 1 in Table omit the Thick Molding Compound (TMC): Needs to read "Sheet Molding Compound (SMC) Manufacturing and (SMC) Molding Operations and Storage"
- -pg 23, omit the reference to TMC and replace with SMC. (section 1.a.vii and viii)
- -pg 24, omit the reference to TMC (section 1.e.f.ii and section 1.e.j)

The above requested changes were made where appropriate.

TVEE changes were reviewed and approved on February 6, 2020 and again on February 26, 2020. See Permit Modification Tracking slip or email correspondence for confirmation.

### V. Regulatory Review

The facility is currently subject to the following regulations, in addition to the requirements in the General Conditions:

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15A NCAC 2D .0503 "Particulates from Fuel Burning Indirect Heat Exchangers"
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15A NCAC 2D .0515 "Particulates from Miscellaneous Industrial Processes"

15A NCAC 2D .0516 "Sulfur Dioxide from Combustion Sources"

15A NCAC 2D .0521 "Control of Visible Emissions"

15A NCAC 2D .0958 "Work Practices for Sources of Volatile Organic Compounds" (removal)

15A NCAC 2D .1100 "Control of Toxic Air Pollutants"

15A NCAC 2D .1109 "112(j) Case-by-Case Maximum Achievable Control Technology"

15A NCAC 2D .1111 "Maximum Achievable Control Technology"

(40 CFR Part 63 Subparts MMMM, PPPP, WWWW, DDDDD)

15A NCAC 2D .1806 "Control and Prohibition of Odorous Emissions"

15A NCAC 2Q .0317 "Avoidance Conditions"

(PSD Avoidance)

15A NCAC 2Q .0512 "Permit Shield and Application Shield"

(Shield from 40 CFR Part 63 Subpart MMMM)

An extensive review for each applicable regulation is not included in this document, as the facility's status with respect to these regulations has not changed. The permit will be updated to reflect the most current stipulations for all applicable regulations.

15A NCAC 2D .0958 "Work Practices for Sources of Volatile Organic Compounds" (removal)

Effective November 1, 2016 - 15A NCAC 02D .0958 is applicable only to following counties/areas in NC:

- ➤ Cabarrus County;
- ➤ Gaston County;
- Lincoln County;
- ➤ Mecklenburg County;
- ➤ Rowan County;
- Union County; and
- > Davidson Township and Coddle Creek Township in Iredell County

Thus, this rule is no longer applicable in Johnston County and will be removed as part of this renewal application.

### VI. NSPS, NESHAPS/MACT, PSD/Increment, 112(r), RACT, CAM

<u>NSPS</u> – The facility is not currently subject to any New Source Performance Standard (NSPS). This permit renewal does not affect this status.

<u>NESHAPS/MACT</u> – The facility is currently subject to six Maximum Achievable Control Technology (MACT) Standards. The facility is classified as a Title III major facility with no 112 (d) avoidance conditions.

#### 1. Subpart MMMM

This regulation limits HAP emissions from metal coating processes based on the nature of the coating material and the object being coated. The regulation only applies to a facility if it is HAP-Major. All of the subject emission sources at this facility are considered existing "general use coating", which has a limit of  $0.31 \text{ kg}_{\text{HAP}} / 1 \text{ L}_{\text{coating}}$  (2.6 lb / gal).

In order to demonstrate compliance, Raven must comply with all the requirements of MACT Subpart PPPP. All of the sources at the facility that are subject to Subpart MMMM are also subject to Subpart PPPP.

In section 2.3 of the permit, there is a list of sources on the Insignificant Source list that are shielded from the requirements of Subpart MMMM. This determination was made based on the requirements of 40 CFR 63.3941(a) and .3881(c)(1).

There have not been any relevant updates to this MACT (amended April 20, 2006). Therefore, the permit stipulation does not need to be changed.

### 2. Subpart PPPP

This regulation limits HAP emissions from plastic coating processes based on the nature of the coating material and the object being coated. The regulation only applies to a facility if it is HAP-Major. All of the subject emission sources at this facility are considered existing "general use coating", which has a limit of  $0.16 \text{ kg}_{\text{HAP}} / 1 \text{ kg}_{\text{coating}}$ .

Raven has chosen to comply with the MACT by using either the "Compliant material" option (40 CFR 63.4491(a)) or the "Emission rate without add-on controls" (40 CFR 63.4491(b)). The regulation lists formulas and steps for determining compliance with either option.

Note that the MACT specifically states that the work practice requirements do not apply to either of the above options.

There have not been any relevant updates to this MACT (amended April 24, 2007). Therefore, the permit stipulation does not need to be changed.

#### 3. Subpart WWWW

This regulation limits HAP emissions from resin molding processes located at HAP-Major facilities. The limits are based on the nature of the resin molding process. All of the resin molding processes at the facility are closed-mold processes. Such processes only have to meet the work practice standards listed in Table 3 of the regulation. Records of work practice requirements must be kept and reported regularly.

There have not been any relevant updates to this MACT (amended April 20, 2006). Therefore, the permit stipulation does not need to be changed.

#### 4. Subpart ZZZZ

Raven operates a 191 horsepower diesel-fired emergency generator. Because the facility is considered HAP-Major, the engine is subject to the requirements of MACT Subpart ZZZZ. Based on the previous renewal application, the engine was installed at the facility in 1966, so it is considered "existing."

A notation for this regulation was added during the last renewal cycle.

#### 5. Subpart DDDDD

This regulation applies to boilers located at HAP-Major facilities. At the time of Global Skyware's last renewal cycle, this regulation did not apply to the four natural gas-fired boilers (ID Nos. ES-03140, ES-03240, ES-04450 and ES-04550) because they were subject to the Caseby-Case MACT instead. As part of NC DAQ's planned transition from the Case-By-Case MACT (CBCM) to MACT Subpart DDDDD, a stipulation for the MACT was added to the permit. This regulation became effective on May 20, 2019.

Global Skyware must comply with the requirements for "Units designed to burn gas 1 fuels" subcategory of boilers and process heaters, as defined by the regulation per 40 CFR 63.7499(1). As currently written, this included work practices, regular tune-ups, and a one-time energy assessment.

Updated Boiler MACT language was requested from Mr. Joe Voelker, RCO on January 16, 2020.

Boiler MACT conditions were provided by Mr. Voelker, RCO on January 17, 2020 for both boilers sizes to be consistent with other permitted facilities and will replace the condition in Raven's current permit.

#### 6. Case-by-Case MACT for Boilers and Process Heaters

The boilers at the facility are no longer subject to North Carolina's Case-by-Case MACT (CBCM) for boilers and process heaters. This regulation stopped being effective on May 20,

2019 (applicable through May 19, 2019). This regulation and all references will be removed from Raven's permit.

<u>PSD</u> – The facility remains a Prevention of Significant Deterioration (PSD) Major source. Global Skyware is avoiding additional requirements under PSD by complying with two VOC emission limits. The permit groups all permitted equipment under one of two limits:

Limit#1: ID Nos. ES01267, ES01367, ES01467, ES02167, ES01867, ES00167, ES00050, ES00150, ES01150, ES02150, ES03150, ES04150, ES05150, IS10, IS11, IS12, IS13, IS18, IS19, IS21, IS23, IS24, IS10091, IS12052, IS50052 and IS06642

Limit#2: ID Nos. ES01151, ES01051, ES00951, ES00451, ES00651, ES03165, ES03265, ES03365, ES03865, ES03965, ES11550, ES11050, ES11150, ES11250, ES11450, ES60051, ES00187, and IS77750

The VOC limit for both Limit #1 and #2 is 250 tons per year.

In order to demonstrate compliance, Global Skyware must calculate VOC emissions on a monthly basis. Monitoring and recordkeeping must be reported twice per year.

Based on the most recent reports and the data in IBEAM, Global Skyware has been complying with the PSD Avoidance limits.

This permit renewal does not affect this status.

<u>Attainment</u> –The PSD minor source baseline dates for PSD increment tracking was triggered on October 1981 in Johnston County for  $PM_{10}$  or  $SO_2$ . There are no emission changes associated with this renewal. Hence, this permit renewal does not consume or expand increments for any pollutants.

<u>112(r)</u> – This facility does not appear to store any 112(r)-subject chemicals above their respective thresholds. Therefore, Global Skyware does not have any increased requirements under Section 112(r) "Prevention of Accidental Releases" program of the Clean Air Act.

**RACT** – The facility is not located in an area of ozone nonattainment. Therefore, RACT does not apply.

<u>CAM</u> – 15A NCAC 02D .0614 [40 CFR Part 64] COMPLIANCE ASSURANCE MONITORING (CAM) is a regulation that applies exclusively to control devices. Global Skyware does not operate any control devices at this facility; hence, CAM does not apply.

#### VII. Facility Wide Air Toxics

Previously, Global Skyware was subject to 02Q .0705 and 02D .1100. However, with the 05529T24 permit, these requirements were removed per Session Law 2012-91.

02Q .0705 was removed from the permit because that law has been repealed.

02D .1100 was removed from the permit because it was demonstrated that the removal of those TAP emission limits would not cause an unacceptable risk to human health.

Modeling for T24 was conducted, per facility's request, to determine if the facility poses any unacceptable risks by removing TAP restrictions from their permit. Styrene was the only pollutant evaluated in the modeling analysis. Per Memorandum dated August 20, 2013 from Alex Zarnowski, Air Quality Analysis Branch (AQAB), the modeling adequately demonstrates compliance on a facility-wide basis.

There are no remaining TAP emission limits in the permit.

### VIII. Facility Emissions Review

For historical emissions data (last five year's actual emissions inventory data) for this facility, see the table on the first page of this review.

This permit renewal is not expected to have an effect on potential emissions from the facility.

### IX. Compliance History

The facility was most recently inspected on March 18, 2020 by Jeff Harris, RRO. Based on observations made during this inspection, Global Skyware appears to be in compliance with all their air quality permit specific limitations and conditions. The inspection report is not available at this time due to the inspector awaiting records requested from the facility per email exchange between Mr. Harris and this review engineer.

#### Excerpt from previous inspection report dated December 6, 2018:

ENFORCEMENT HISTORY: Raven Antenna Systems has been issued one Notice of Violation (NOV) within the past five years. An NOV was issued on February 21, 2018 for failure to conduct the 2017 annual inspection and maintenance on one of the facility's boilers, ES ID. ES-03140. Prior to the current five-year period, the facility was issued an NOV on November 6, 2006 for failure to submit a quarterly report for the third quarter by the due date. Prior to that, an NOV was issued on March 25, 2004 for failure to report permit deviations on their annual compliance certification. Additionally, an NOV/NRE was issued on August 8, 2003 for failing to perform numerous monitoring, recordkeeping, and reporting requirements but no fine was assessed for this offense. Then on March 11, 2003, an NOV was issued for failure to report permit deviations on their annual compliance certification.

#### X. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above.

The Public Notice period ended on XXXX, 2020. XXXX comments were received.

The EPA Notice period ended XXXX, 2020. XXXX comments were received.

### XI. Conclusions, Comments, and Recommendations

### Professional Engineering Seal

A Professional Engineering Seal (PE Seal) was NOT required for this permit renewal.

## Zoning Consistency Determination

A consistency determination was NOT required for this permit renewal.

RRO was presented with a DRAFT permit prior to notice and recommends issuance of the permit.

RCO concurs with RRO's recommendation to issue this renewed permit.

Issue Permit No. 05529T27